contact info:

Eric De Vito

Brickfield, Burchette, Ritts & Stone, PC Suite 800 - West Tower 1025 Thomas Jefferson Street, NW Washington, DC 20007

# Measure Information Template

California Building Energy Efficiency Standards Revisions for July 2003 Adoption

# Cardinal Glass Industries

Proposed Measure: Energy Efficiency Improvements to Existing Buildings

November 5, 2001

## Description

We recommend that the Commission determine what role the Standards and/or the Commission can play to encourage or even require certain energy efficiency improvements for both residential and non-residential buildings when: (a) the building is sold; (b) the heating/air conditioning plant is replaced; (c) other major improvements or alterations are made to the building; and/or (d) other events occur that justify imposing improvement requirements. For example, when replacing the space conditioning system in a building, the owner could be required to improve the building envelope and size the new system based on the improved envelope.

#### Benefits

There are limited opportunities to improve the energy efficiency of existing homes and buildings, and in particular, the vast majority of structures, which were built prior to effective building energy efficiency standards. We have proposed this measure to explore creative ways to garner additional energy and demand savings in homes beyond those that are newly built today and in the future.

Such a review is warranted because the pool of existing homes is so vast that even the simplest ("low-hanging fruit") measures will produce notable energy and demand savings.

#### **Environmental Impact**

No adverse environmental impact expected.

#### Type of Change

The type of change will depend upon the discussion and analysis that ensues following this proposed measure.

Measure Availability and Cost

No additional costs or availability limitations are anticipated at this time.

Useful Life, Persistence and Maintenance

There could be an impact on the life, frequency of replacement, or maintenance procedures by this proposed measure. It is impossible to quantify that impact at this time.

Performance Verification

Additional performance verification or commissioning measures beyond what currently exists in the Standards are expected, but such measures cannot be determined until discussion and analysis of this proposed measure occurs.

#### Cost Effectiveness

Cost-effectiveness will depend upon the measures ultimately recommended.

### **Analysis Tools**

Energy savings and peak electricity demand reductions attributable to this proposed measure can be estimated using various building simulation tools, such as MICROPAS and various DOE-2 based simulation tools.

Relationship to Other Measures

Not yet identifiable.

Bibliography and Other Research